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# revised development concept plan

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# BUFFALO

TYLER BEND



NATIONAL RIVER / ARKANSAS



RECOMMENDED:

John F. Turney  
Superintendent, Buffalo National River

January 8, 1981

APPROVED:

Robert Kerr  
Regional Director, Southwest Regional Office

January 26, 1981

AMENDMENT RECOMMENDATION:

Clifford W. Blackstun  
Acting Assistant Manager, Central Team,  
Denver Service Center

September 25, 1986

Alec Gould  
Superintendent, Buffalo National River

October 10, 1986

APPROVED:

Keith E. Miller  
Acting Regional Director, Southwest Regional Office

October, 31, 1986

REVISED  
DEVELOPMENT CONCEPT PLAN

TYLER BEND  
BUFFALO NATIONAL RIVER  
Arkansas

The approved 1981 Development Concept Plan (DCP) for the Tyler Bend area was amended in 1986 because of changing conditions, updated resource information, more management experience, and recommendations made in more recent planning efforts (the 1986 Road System Evaluation, the 1986 "Interpretive Prospectus," and the 1987 Trail Plan). With the exception of the horse concession facility, all land uses discussed below were included in the 1981 DCP. The functional organization has changed and facility sizes have been adjusted somewhat. However, the land areas proposed for development are generally the same, and the overall resource impacts will be similar.

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# REGION

Buffalo National River, Arkansas



United States Department of the Interior / National Park Service

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## INTRODUCTION

Buffalo National River was authorized by an act of Congress on March 1, 1972 (PL 92-237, 86 Stat. 44). Following this authorization, a conceptual master plan was developed to implement the general and specific mandates of Congress, the cooperative agreements, and the administrative policies and management objectives of the National Park Service (NPS). This plan, entitled Master Plan, Buffalo National River, was approved on October 16, 1975.

Three major visitor use areas are identified for future development in the Master Plan, each linking Buffalo River to an existing major highway. Tyler Bend, in the park's Middle district at the point where US 65 crosses the river, is one of these areas. As defined in the Master Plan, the purpose for the Tyler Bend area is to establish a major facility where information and interpretation would be provided, where outdoor recreation and facilities would be available, and where district management facilities could be located to provide protection and management of the middle one-third of the Buffalo National River. The facilities suggested for the Tyler Bend area include a visitor contact station, a district ranger station, an amphitheater, picnic areas, boat accesses, parking lots, a horse concession, NPS housing, and a maintenance facility.

The 1981 Development Concept Plan (DCP) for Tyler Bend addressed the following specific concerns for the development and use of Tyler Bend:

Of the three areas identified for major development in the Master Plan, the Tyler Bend area has the least existing recreational development and use; consequently, there are more options for future use.

US 65 is the most heavily traveled road bisecting the river.

The floating season frequently extends into the summer months at Tyler Bend, leading to a potential conflict between floater put-in and takeout and swimming activities.

Some structures remaining at Tyler Bend may qualify as interpretive "discovery" sites. Some of these discovery sites have the potential to contribute to a cultural interpretive program.

There are few commercial recreational services within convenient driving distance of Tyler Bend at this time.

Periodic flooding occurs on the lower floodplains, limiting the type of facilities that can be developed close to the river.

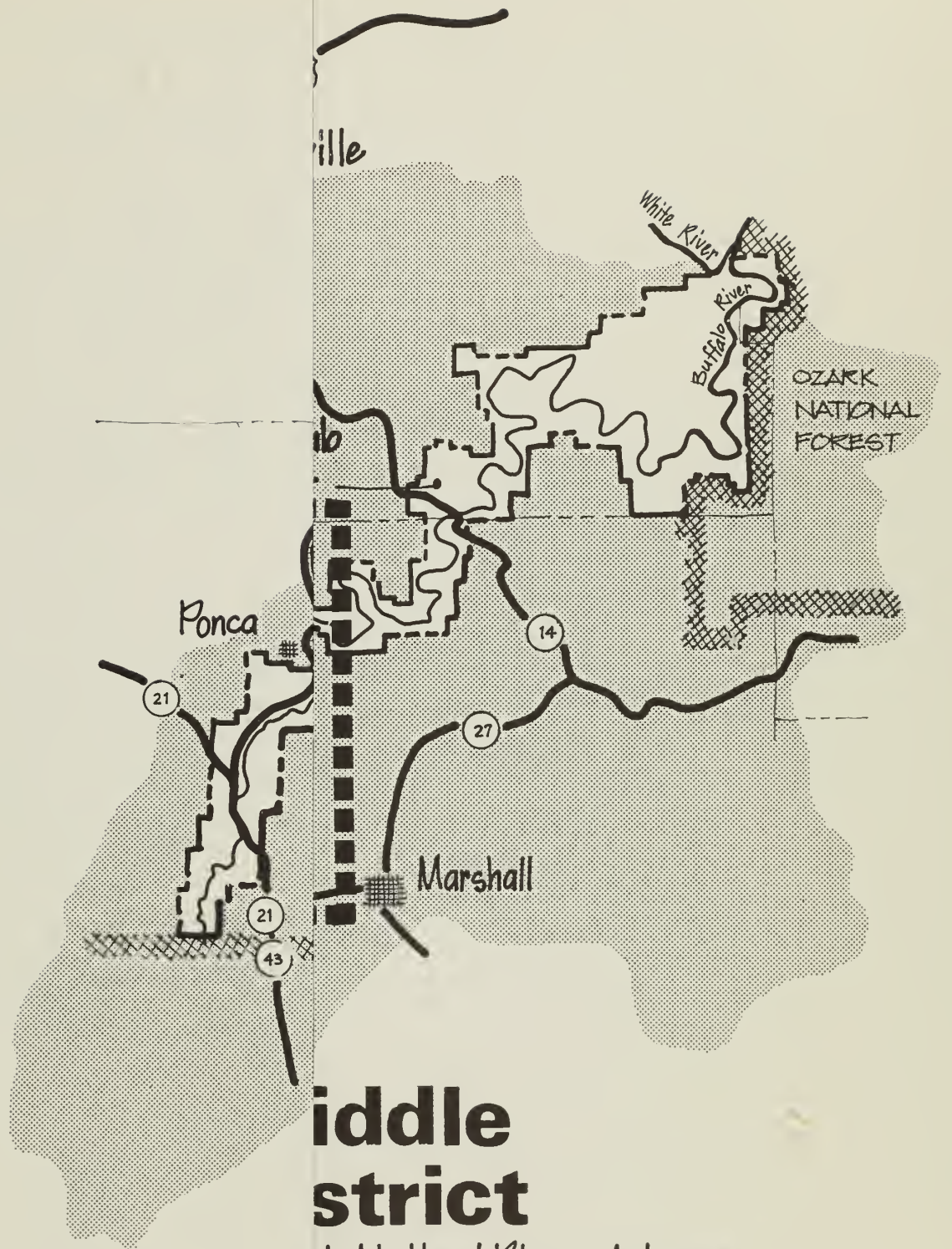
Developments need to be within easy access of the river resource for visitor convenience, but they must be adequately screened by floodplain vegetation and landforms to visually enhance the floaters' experiences.

Although Buffalo National River has been designated as a recreational river--allowing appropriate facility development to support visitor use--development should be designed to permit protection and enhancement of the resource.

Accessibility to and use of park facilities by physically and mentally handicapped visitors must be ensured in conformance with applicable provisions of the Design and Construction of Public Buildings to Accommodate the Physically Handicapped Act (PL 90-480, 82 Stat. 718) and other applicable laws and regulations.

In conformance with Executive Order 12003, "Energy Policy and Conservation," buildings will be designed and constructed to be energy efficient.





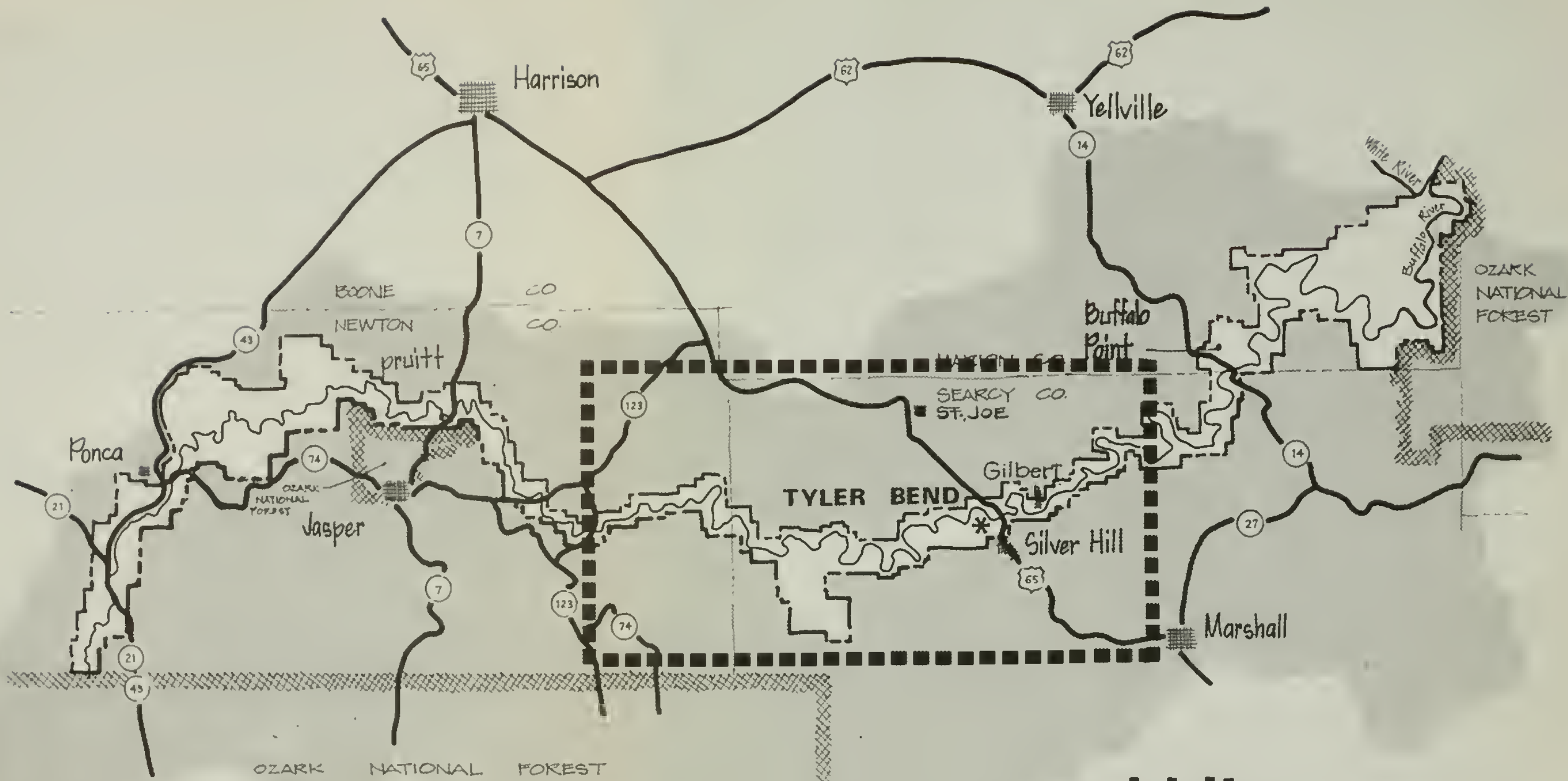
# Middle District

Buffalo National River, Arkansas



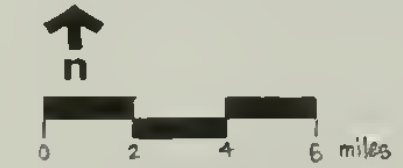
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Map by Department of the Interior / National Park Service



# middle district

Buffalo National River, Arkansas



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## DESCRIPTION OF THE ENVIRONMENT

### EXISTING DEVELOPMENT AND USE

The Tyler Bend development area lies in the middle one-third of Buffalo National River. The Middle district currently has a small temporary headquarters/contact station on Silver Hill near the access road into Tyler Bend. Information regarding recreational activities in the area and floating conditions along the Buffalo River are available. Pulloff visitor parking is provided along US 65. A staff residence, a trailer, and a seasonal residence are immediately adjacent to the contact station.

The current primary visitor use near Tyler Bend is canoe put-in/takeout, which occurs immediately downstream of the US 65 bridge at an undeveloped river access. Other uses include camping, swimming, and picnicking. Poor visibility and substandard road conditions make the river access road/US 65 intersection hazardous.

### PARKWIDE VISITATION

Traditionally the Buffalo River has been a place for local people to float, fish, and swim. Since its designation as a national river, use of the river has expanded, now providing a spectrum of visitor experiences and recreational uses that are compatible with the area's natural and cultural resources. Visitor activities include floating and river camping, swimming, hiking, backpacking, picnicking, hunting, fishing, horseback riding, johnboating, visiting historic sites, caving, and more. Floating depends on access to put-in and takeout locations, which are generally within an easy day's float from each other and at points that are accessible by existing roads.

As shown below, annual visitation to the national river more than tripled between 1974 and 1978. From 1978 to 1984, visitation stayed in the 500,000 to 600,000 range. In 1985 it rose to over 761,000, and in 1986 it climbed to 972,500 visits. As park development occurs over the next 10 to 15 years, visitation should increase.

#### Annual Visits to Buffalo National River

1974	205,900	1981	580,100
1975	224,000	1982	606,900
1976	315,700	1983	655,800
1977	331,500	1984	510,000
1978	645,300	1985	761,100
1979	675,800	1986	972,500
1980	576,400		



Buffalo National River draws a mix of visitors from the local area, the six-state surrounding region, and an increasing number of national and international groups. More than 10 million people live within 250 air miles of Buffalo National River.

## NATURAL ENVIRONMENT

The Buffalo National River area is in the Springfield-Salem Plateaus section of the Ozark Plateaus province of the Interior Highlands division in northwestern Arkansas. The area to be developed is along the Buffalo River approximately 1.2 miles upstream from the US 65 bridge. Elevations range from about 590 feet above mean sea level at the river to over 950 feet on the ridges near US 65.

### Geology/Topography/Soils

The surface geology of the Tyler Bend area is dominated by the sedimentary Boone formation, which dates to the Lower Mississippian age and is composed largely of limestone and chert. Small areas of various shales and sandstones may be found throughout the study area.

Weathering of the relatively soft limestone has created steep hillsides and bluffs, leaving little level area for development. Slopes from 0 to 10 percent (developable area) account for only 21 percent (545 acres) of the Tyler Bend area (2,584 acres); developable area outside of the 100-year floodplain totals only 290 acres.

The soils on the site have evolved from limestone formations and are categorized as Ozark Highlands limestone soils. Practically all the soils are well drained but range in permeability from slow to excessive. Silt and sandy loams are present in the floodplains and on low terraces; the hillsides tend to be stony or cherty clays and loams.

The Soil Suitability chart indicates the relative suitability of these soil series for certain types of use. Ratings of slight, moderate, or severe are relative gradations indicative of the amount of effort required to accommodate a particular use on a particular soil. Slight limitations indicate few, if any, problems for a use. Moderate limitations indicate that there are some incompatibilities between a soil and a use, but careful engineering design, construction, and maintenance can mitigate the problems. Severe limitations portend extensive engineering and mitigation to adapt a use to a soil.

### Climate

The climate of the Buffalo River region is temperate. The average annual temperature is 58 degrees Fahrenheit, and the average day-night temperature difference is approximately 29 degrees. Summers are long and warm, with July temperatures averaging about 80 degrees. The frost-free season averages 199 days.



0



5



10



+2

**SLAND**  
**ANV** ARKANSAS  
ce



- 0-5
  - 5-10
  - 10-20
  - +20
- Percent Slope

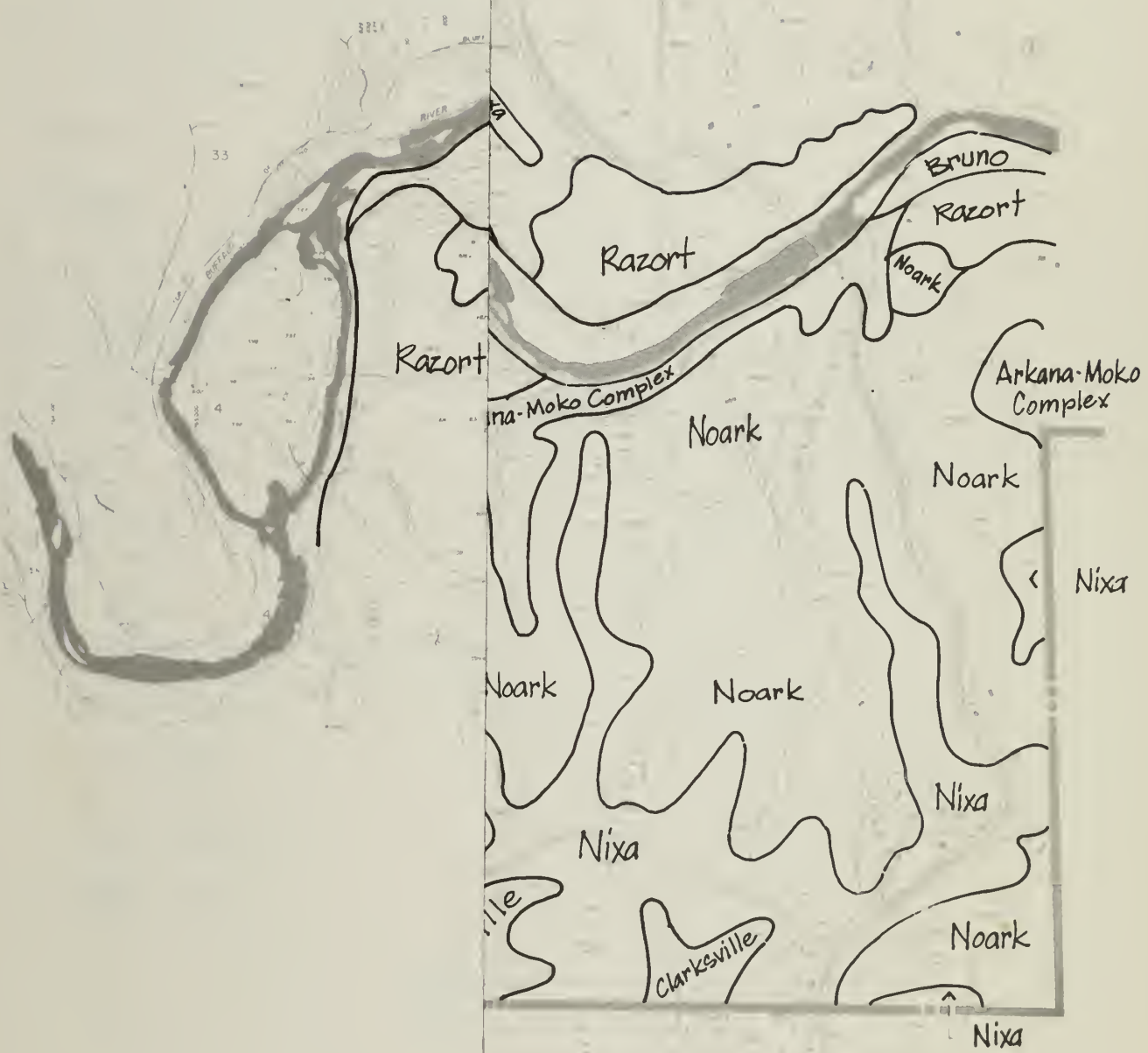
# SLOPE ANALYSIS



TYLER BEND

BUFFALO NATIONAL RIVER, ARKANSAS

United States Department of the Interior National Park Service

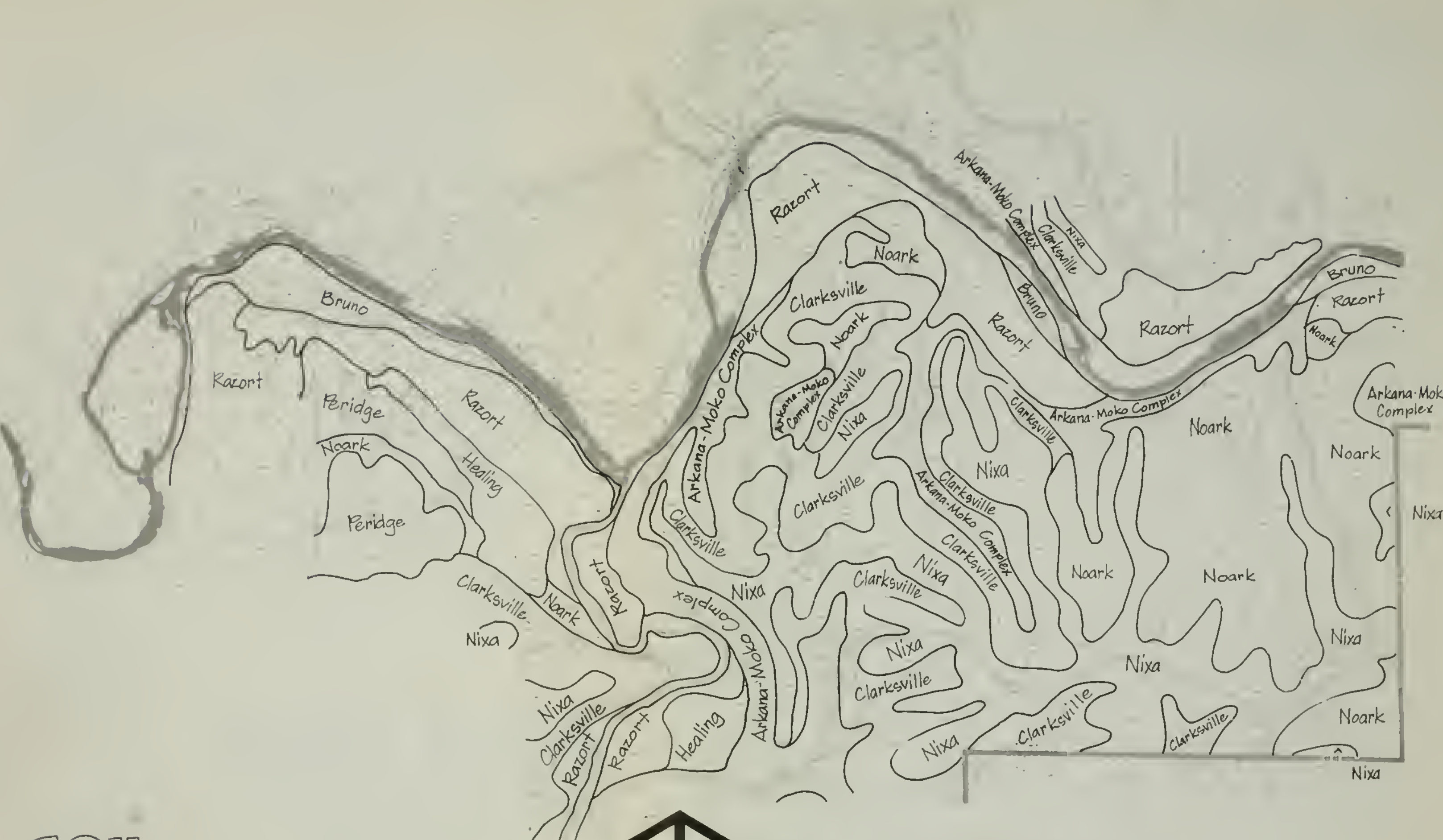


**SOIL  
SURVEY**

**ND  
ARKANSAS**

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# SOIL SURVEY



**TYLER BEND**  
 BUFFALO NATIONAL RIVER, ARKANSAS  
 United States Department of the Interior National Park Service

173145266  
 Dec 1978



# soil suitability

SOIL SERIES	USE6					Comments
	Recreation	Development	Sanitary Fac.	Water Mgmt.	Source Mat'l.	
Razort	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Low terraces
Bruno	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Floods
Arkana - Moko Complex	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Steep slopes
Clarksville	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sideslopes
Noark	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Stones & Clay
Nixa	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Ridgetops
Healing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Floods
Peridge	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

## LIMITATIONS

- Slight
- Moderate
- Severe

# tyler bend

DEVELOPMENT CONCEPT PLAN  
Buffalo National River - Arkansas

The average annual precipitation is 48 inches, with relatively uniform distribution throughout the year, although spring months receive slightly higher amounts. Since 1900, the greatest annual precipitation was 82 inches a year in 1927, and the least was 30 inches in 1901. Snowfall averages 12 inches a year and may occur from November through March.

Prevailing winds are moderate and southerly. Drought conditions, common to the Great Plains, often extend into the Ozarks and affect plant and animal life as well as streamflow.

## Water Resources

Surface Water Sources. Buffalo River--which originates in the Boston Mountains almost 2,400 feet above mean sea level--drains an area of approximately 1,400 square miles as it meanders eastward to join the White River. Major tributaries to the Buffalo River include the Little Buffalo River, Richland Creek, Bear Creek, and Big Creek.

Buffalo River is subject to extreme fluctuations in flow. Flows were less than 309 cubic feet per second (cfs) at the St. Joe (US 65 bridge) gauging station 50 percent of the time between 1940 and 1983 (GS 1985). Flow in the river is lowest in late summer and early fall and highest in spring and early summer. The estimated 100-year flood elevation is 616 feet above sea level at US 65, with a discharge of 176,000 cfs (GS 1985). The 500-year flood is estimated at 625 feet and 243,000 cfs. The flood of December 1982 rose to 614 feet and 158,000 cfs, just below the estimated 100-year food level. By extrapolating this data upstream, it is estimated that the flood levels would be about 2 feet higher in elevation above sea level at Tyler Bend. Such flooding may occur in the Buffalo River drainage at any time of the year.

Surface Water Quality. The Buffalo River is one of the few remaining free-flowing rivers in Arkansas. The river is nationally known for its scenic beauty and recreational opportunities. The state of Arkansas has classified the river as an outstanding natural resource water having extraordinary recreation and aesthetic value. This is the state's highest stream use classification. This classification requires that higher standards be met for maximum fecal coliform content. The river is also classified as a cool water fishery by the state.

Groundwater Sources. Groundwater in the area is obtained from shallow aquifers of the Mississippian and Pennsylvanian periods and from deeper aquifers of the Cambrian and Ordovician periods. The shallow aquifers commonly yield 2 to 6 gallons per minute, but in highly fractured zones yields of 25 to 50 gallons per minute (gpm) may be encountered. Deep artesian aquifers commonly yield 150 to 300 gpm; however, yields are highly variable, and yields up to 500 gpm have occasionally been encountered. The deep aquifers are the most dependable as a source of water for municipal, industrial, and agricultural uses. Recharge to the shallow aquifers is by a combination of stream infiltration, local precipitation, and upward movement of groundwater from the deeper aquifers.

## Vegetation

Floodplain. Floodplain vegetation is mostly composed of American elm, green ash, silver maple, and boxelder. These species occur on low, relatively flat terraces and are subject to flooding almost yearly. Streamside species include sycamore, black river birch, black willow, and cottonwood. Gravel bar species include Ward's and sandbar willows. Because streamside communities are very narrow and gravel bar communities are too small for accurate delineation on the Vegetation map, they have been described here.

Pasture, Meadow, and Cultivated Field. Pastures, meadows, and cultivated fields are open areas with few or no trees; management practices have occurred or are occurring.

Cutover Area. Cutover areas may include any forest vegetation. Usually such areas are dominated by dense stands of small trees.

Disturbed Area. Disturbed areas are those other than cutover areas, pastures, meadows, or cultivated fields; they may contain cultural features such as buildings.

Mixed Hardwood. Generally, mixed hardwoods provide a transition between the floodplain and oak/hickory, oak/pine, or cedar glade vegetation. They occur typically in moist areas on north-facing slopes above the river and along small mesic streams and upland ravines. Such areas are frequently steep-sided with a northerly exposure. Species present include upland vegetation such as oak/hickory or oak/pine and floodplain or lowland species like American elm, green ash, silver maple, sweetgum, white ash, bitternut hickory, hackberry, black gum, black walnut, shumard oak, and white oak.

Cedar Glade. Cedar glades exist almost exclusively as narrow bands of vegetation on the tops or steep sides of limestone or dolomite bluffs. Glades have a variable vegetative composition, with the drier areas supporting mainly red and some white cedar, prairie grasses (if undisturbed), or weedy grasses and forbs (if heavily grazed). More mature glades support oak/hickory forests with little cedar.

Oak/Pine. Occurring extensively on upland soils derived from sandstones or shales, these areas are usually dominated by oaks, although shortleaf pine can occur locally in almost pure stands. Generally, pines constitute from 10 to 40 percent of the total species composition. In some instances, pure or nearly pure stands of pine have been planted.

No rare, threatened, or endangered plants have been identified within the Tyler Bend area (Babcock 1977, 1978).

## Wildlife

The wildlife along Buffalo River is typical of the deciduous forest biome. In general, wildlife habitat has decreased in recent decades as a result of continued clearing of forested lands for pastureland. The decrease is applicable to species that favored climax deciduous forest cover. Habitat diversity, created by various land clearing practices, has actually benefited wildlife quantitatively and qualitatively.

Arkansas game animals present in the Buffalo National River region are white-tailed deer, squirrel, rabbit, bobwhite quail, mourning dove, and wild turkey. Furbearers found in the Tyler Bend area are beaver, opossum, raccoon, mink, bobcat, gray fox, skunk, muskrat, and otter. Hunting is permitted in season within the national river boundaries but is prohibited in the developed areas.

The red fox and mountain lion are protected species and may not be hunted. Black bear are found in small numbers and are now listed as game animals.

A number of species like timber wolf, elk, and bison have been extirpated from the region. The red wolf is classified as endangered; its existence in the locale is doubtful. The black bear and wild turkey were once nearly extirpated species in Arkansas, but they have been successfully reestablished.

The Buffalo River is noted for its smallmouth bass fishing. Other game fish present are the largemouth bass, spotted black bass, rock bass, suckers, catfish, bluegills, green sunfish, and other sunfish. From 1965 to 1973, there were 59 species of fish recorded in the Buffalo River, including the studfish, chestnut lamprey, darters, and gar.

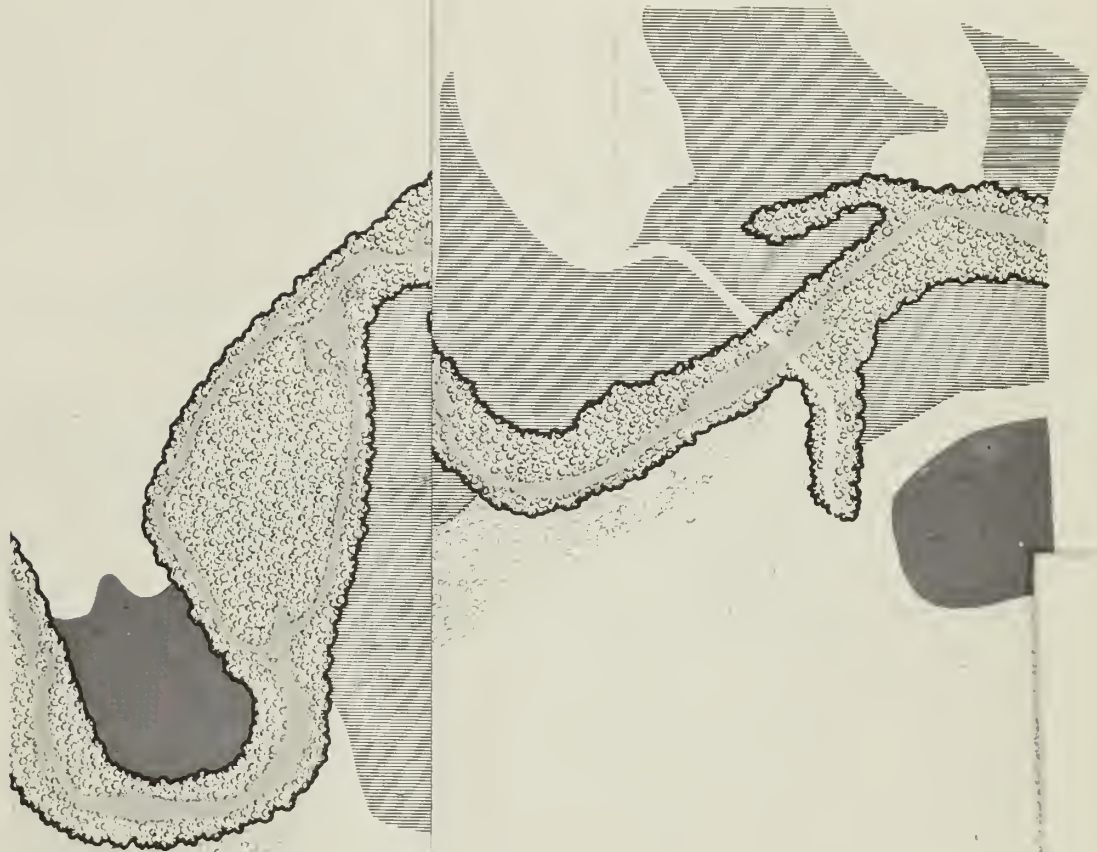
Over 250 species of birds have been reported in the Buffalo River area, including many migratory waterfowl that are seen during spring and fall migrations.








The gray bat (Myotis grisescens) and the Indiana bat (Myotis sodalis) are known to live in the region, and both are on the federal endangered species list.

Buffalo National River and its development sites were examined in July and September 1978 by a study team from the Ecological Research Center, Department of Biology, Memphis State University. The team produced an annual report, "Distribution Status and Ecology of Endangered Bats of Buffalo National River," that identified a number of bat caves and the number of individual bat species inhabiting these caves. In addition to the endangered species mentioned above, the following common species inhabit caves in the area: eastern pipistrelle (Pipistire ilus), red bat (Lasiurus borealis), and big brown bat (Eptesicus fucus).

No endangered or threatened wildlife species are known to inhabit the Tyler Bend area.





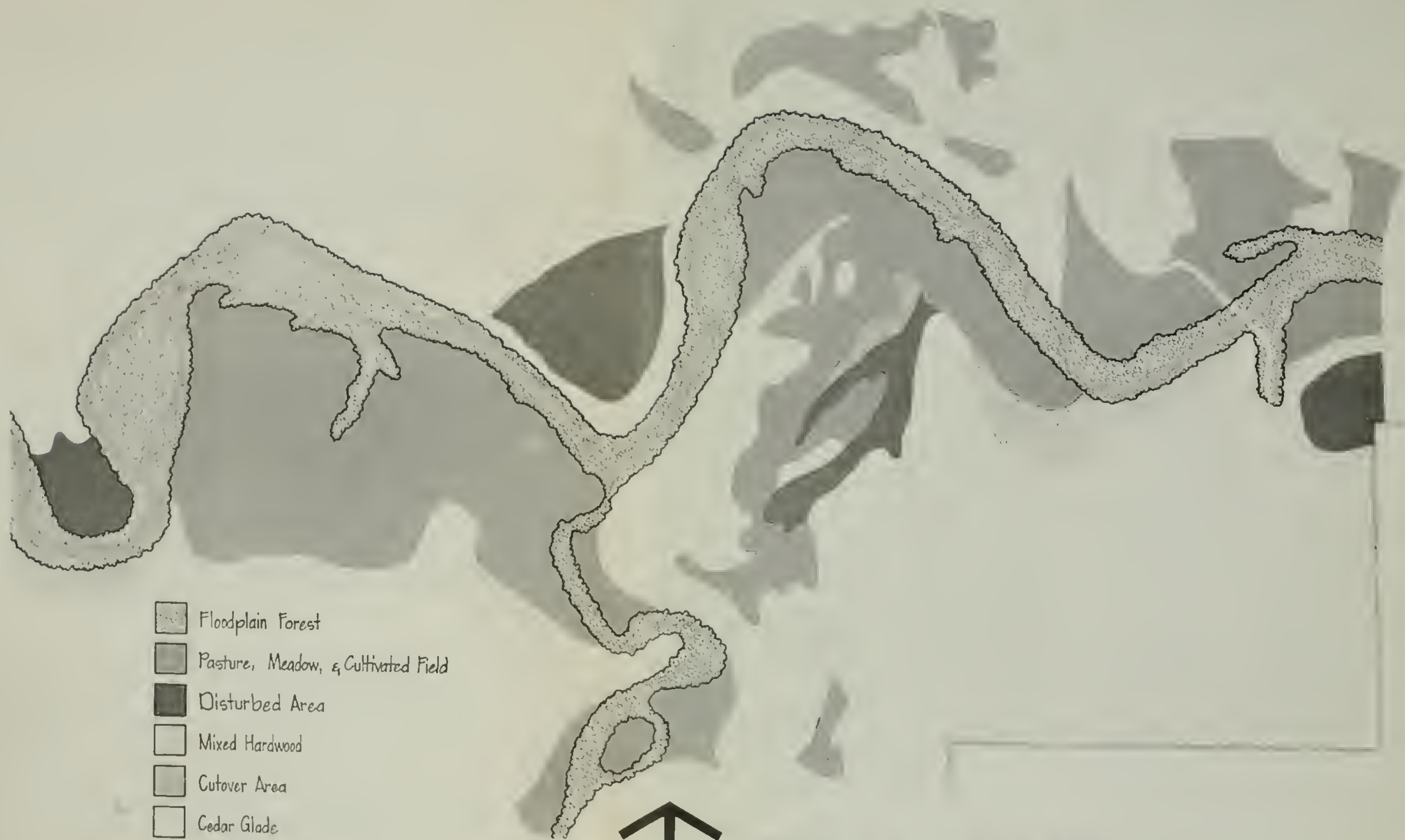
-  Flo
-  Pas
-  Dis
-  Mix
-  Cuta
-  Cede
-  Oak








**ID**

**VEGET**

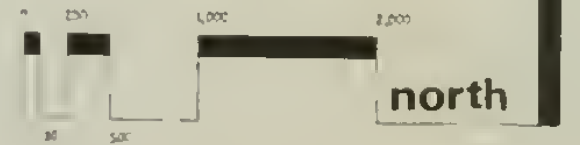
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-  Floodplain Forest
-  Pasture, Meadow, & Cultivated Field
-  Disturbed Area
-  Mixed Hardwood
-  Cutover Area
-  Cedar Glade
-  Oak/Pine

# VEGETATION



**TYLER BEND**  
 BUFFALO NATIONAL RIVER, ARKANSAS  
 United States Department of the Interior, National Park Service

173 | 40,079A  
 DSC | NOV 79

## Aesthetic Quality

Prominent bluffs, steep hillsides, narrow ridgetops, abundant vegetation, animals, caves, springs, historic structures, and the river itself are the features that contribute to the aesthetic quality of Buffalo National River.

Development to accommodate visitors must be close to the river to permit optimum recreational use. Minor developments like campsites, picnic and parking areas, restrooms, and hiking and equestrian trails that do not entail substantial construction can be placed within the floodplain where native streamside vegetation will help screen these areas (see Land Profile). However, because of flooding concerns (and in compliance with Executive Order 11988, "Floodplain Management," substantial developments like visitor centers, park housing, maintenance areas, and district offices will be above the 100-year floodplain.

## CULTURAL ENVIRONMENT

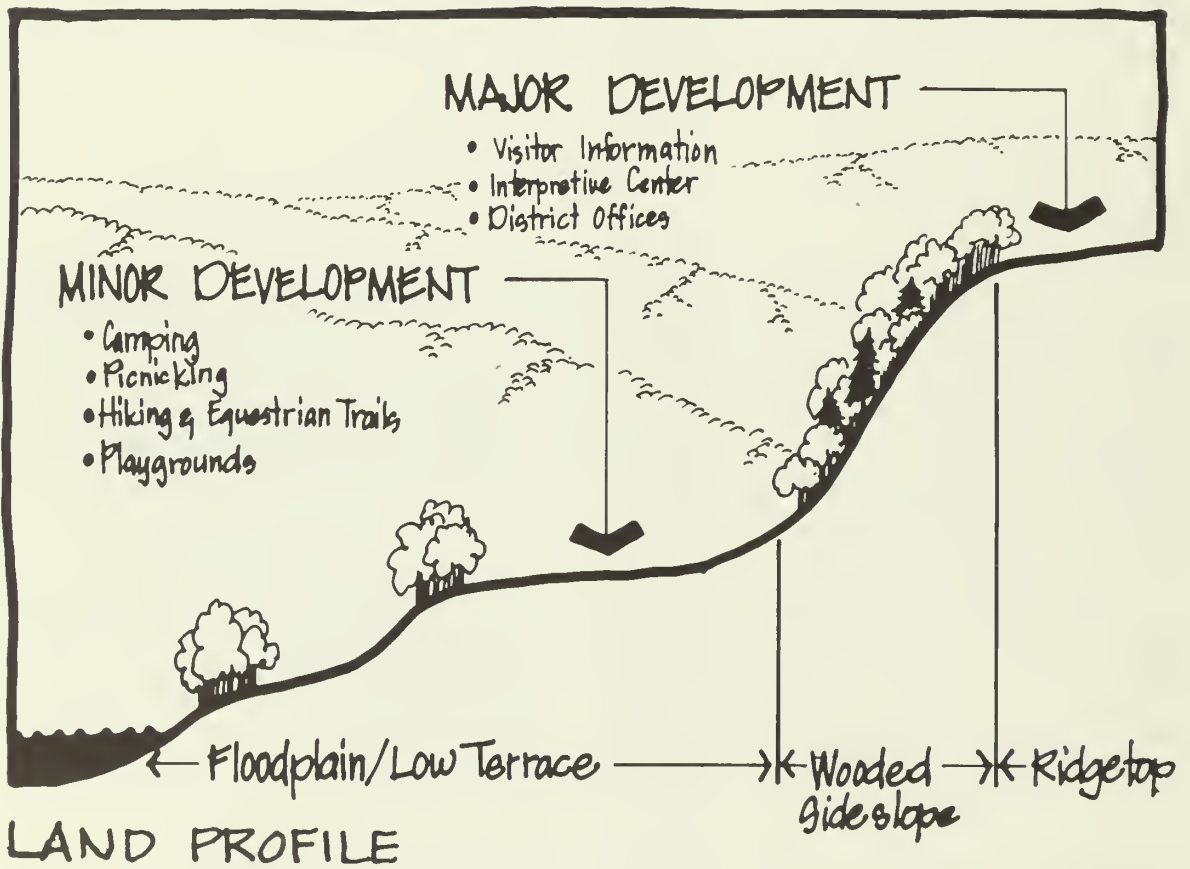
### Prehistory

On the basis of archeological research in the area, it is believed that the first inhabitants of the Buffalo River region arrived during the Paleo-Indian period (ca. 10,000 to 6,000 B.C.). The subsistence of these early people was characterized by the hunting of large game animals, such as mammoth and bison. They were organized in small mobile bands or extended family units and possessed a highly developed chipped stone industry, which included the manufacture of spear and dart points as well as scrapers, graters, and knives.

During the following stage, the Archaic period (ca. 6,000 to 1,000 B.C.), the Paleo-Indian hunters were forced to adjust to a changing environment. Because the Pleistocene megafauna became extinct, the scope of subsistence had to be widened to include hunting smaller animals and gathering natural vegetable foods. They tended to be somewhat more restricted in their settlement pattern but continued to move around to take advantage of seasonal animal and vegetable resources. Bluff areas and rock-shelters were used for habitation.

During the Woodland period (ca. 1,000 B.C. to A.D. 700), the basic resource exploitation pattern of the preceding period was retained, but the manufacture of pottery was added, along with an increasingly sedentary settlement pattern. Sometime after A.D. 1, the bow and arrow came into use in the Buffalo River area. Toward the close of the Woodland period, agriculture came into practice--a revolutionary development that continued into the following Mississippian period (ca. A.D. 700 to 1700).

The elaborate ceremonialism and erection of large temple mounds and associated towns that characterized the Mississippian period in the Mississippi Valley and surrounding areas did not appear in the Buffalo River region, so far as is known. In general, the patterns of life that





developed during the Archaic and Woodland periods appear to have continued with little change until the arrival of European settlers in the early 19th century.

## History

The Tyler Bend area, like most of northwestern Arkansas, was sparsely settled by the early 1800s. Hunters, trappers, and traders were lured here by the abundant game. Some lead-mining entrepreneurs were also early residents. Cherokee Indians briefly occupied the area from late 1817 to 1828 on their westward migration from Kentucky to Oklahoma.

The rugged terrain offered limited usable land for settlers interested in farming. Ridgetops are narrow and rocky; low river terraces, although limited in size, offer deep rich soil. A few individuals did begin settling within the Buffalo River watershed during the 1820s and 1830s, clearing fields and raising small herds of domestic animals. Hunting helped the early settlers supplement their diet, allowing them to eke out a meager existence.

Civil War activities occurred in areas near the Tyler Bend area. However, no Civil War activities took place in the Tyler Bend area. Following the war, area residents continued their subsistence living and began to augment their income with cash crops like cotton.

The event that probably affected the Tyler Bend area the most was the 1903 construction of the railroad from Joplin, Missouri, through Gilbert (a small community on the river only 2 miles east of the present US 65 bridge), and on to Helena, Arkansas. Up to this time, residents had had difficulty transporting cash crops and commercial products out of the hilly country to markets in Springfield (Missouri), Eureka Springs, Batesville, and Russellville (Arkansas) because roads were few and inadequate.

The depression of the 1930s and a drought during the early portion of that decade brought hard economic times to the Buffalo River region once again, but subsistence farming saw most residents through this crisis.

Throughout the last 40 years, subsistence farming has characterized the lifestyle of northwestern Arkansas residents, where today, as in the 1830s, the counties of the Buffalo River watershed remain among the least populated counties of the state. Within the last 20 years, economic progress has come to the area--mostly in the form of light manufacturing companies but also through the construction and development of four large reservoirs.

Regionally at least, northwestern Arkansas has become a favorite outdoor recreation area where the existing lifestyle remains as relaxed and uncomplicated as it must have been 100 years ago.

## Archeological Sites

The Tyler Bend area of Buffalo National River was systematically surveyed for archeological sites, and testing was done on identified sites in 1986. The preliminary conclusion from the testing is that none of the sites were determined eligible for listing on the National Register of Historic Places. The Calf Creek archeological site (3 SE-33) is listed on the National Register of Historic Places, but is outside the Tyler Bend area that is proposed for development.

## Historic Sites

No sites or structures in the Tyler Bend area are on the National Register of Historic Places. The US 65 bridge has been determined eligible for inclusion on the register by the state historic preservation officer, and a nomination is pending.

## SOCIOECONOMIC ENVIRONMENT

### Transportation

US 65 intersects the Middle district and is the major highway through the watershed. Traversing north and south, US 65 links Springfield, Missouri (I-44), 137 miles to the north, and Little Rock (I-30 and I-40), 105 miles to the south. Harrison is 14 miles to the north and Marshall is 11 miles southeast of the Tyler Bend area--both on US 65. The state of Arkansas has proposed a new bridge for the US 65 crossing over the Buffalo River, and construction is scheduled to begin in the near future.

Visitors rely primarily on private vehicles to reach Buffalo National River. Because most visitors come to float the river, motor vehicles are necessary to make the shuttles required for this experience. Moreover, vehicles are used to transport equipment used for floating and camping. It is expected that this traditional reliance on private vehicles will continue.

### Land Use

Subsistence farming has been the traditional land use in northwestern Arkansas. The bottomlands were developed for crops like corn, wheat, and cotton, and wooded hillsides were used for grazing cattle, sheep, and hogs; the ridgetops were generally undeveloped because of the rocky soil. Farmhouses were usually located in the bottomland where water was plentiful.

Some small-scale subsistence farming remains, with farmers supplementing their income through jobs in the surrounding communities. The contemporary trend, however, has been a decrease in the total number of farms and an increase in the acreage of the farms, which makes farming operations more profitable.

Approximately 75 percent of the Tyler Bend area is forested. The remaining 25 percent is in grassland, where pasturing of cattle has been the most recent land use.

Residential and commercial land use in Searcy County (mainly specialty shops catering to tourists) is concentrated on small acreages along either side of the highways and county roads, wherever the topography is suitable for development. Interspersed among local residences are a small but growing number of vacation residences.

### Economic Development

Three basic factors contribute to the district's economic well-being: agriculture, light manufacturing, and leisure industry. Farm income is derived from livestock operations producing cattle, hogs, or poultry; dairy operations; apple orchards; and feed and food grain crops. Major industries in the region include food processing, wood products, apparel, and electrical and plastic manufacturing. Four large reservoirs and Ozark National Forest have helped make the leisure industry the fastest growing segment of the local economy. Tourism has been enhanced by numerous commercial attractions, including Blanchard Springs Caverns and Ozark Folk Center. The mild climate and scenic beauty of the Ozarks has attracted an increasing number of retired persons to the area (Northwest Arkansas Economic Development District, Inc. 1977).

## THE PLAN

### DEVELOPMENT CONCEPT

As proposed in the 1975 Master Plan, Tyler Bend will become a major developed area at Buffalo National River and the center of activity in the Middle district. All existing functions at Silver Hill will be moved to Tyler Bend and expanded.

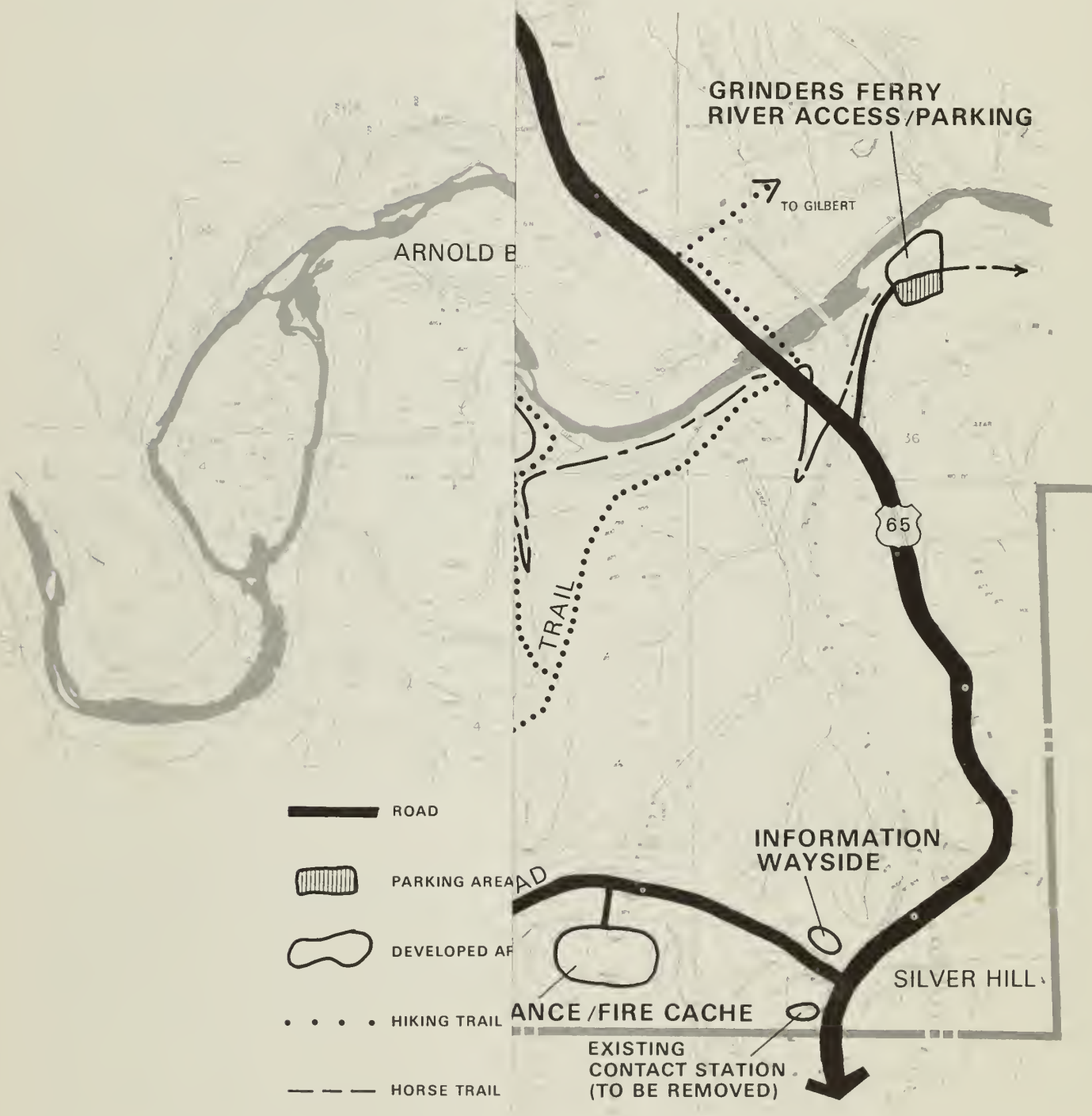
The Tyler Bend entrance road will be widened to 20 to 22 feet of pavement as stated in the 1981 Development Concept Plan (DCP) and 1986 Road System Evaluation. Some minor realignments will be done to improve access to new facilities, create a relatively consistent design speed, achieve a smooth, curvilinear alignment, and maintain appropriate grades; generally, however, the existing alignment will be followed. A major realignment will be done around the visitor center site to maintain desirable grades and preserve land needed for the facility. A bicycle lane will not be included because use levels are not expected to be high enough to warrant the additional cost and environmental impact.

The initial visitor contact will be made at the entrance road near US 65 as proposed in the 1981 DCP; however, the facility provided will be an information wayside exhibit rather than an "unmanned contact station." It is now felt that a modest information wayside is all that is needed.

The visitor center/district headquarters will be constructed at a new site above the river bottomlands. This location was selected because: (1) it is closer to the primary activity areas at Tyler Bend, allowing improved visitor protection and encouraging campers to use the center; (2) there are better views of the Tyler Bend bottomlands, and the site is better protected from visual intrusions on the ridgetops outside the national river boundaries; and (3) the site is a relatively level open field, which facilitates development, and is above the 500-year floodplain. The building will include about 1,000 square feet for the district headquarters and up to 2,000 square feet for the visitor center. The visitor center space will include an information desk, a publication sales area, exhibits, restrooms, and a multipurpose audiovisual room with a capacity for up to 30 people. The parking area will provide spaces for about 25 cars and 5 buses/large vehicles (RVs) and future parking spaces for another 25 cars, if practicable. This facility will also serve as a hiker trailhead.

The 1981 DCP proposed dispersed campgrounds and picnic areas in the Tyler Bend bottomlands. The revised development concept consolidates the two camping areas into one and the two picnic areas into one and separates the day use and overnight use areas (see Revised Development Concept map). The new locations also minimize intrusions in the viewshed from the new visitor center site. The overall capacities are about the same as those in the 1981 DCP. Because of the extensive walk-in camping opportunities at Buffalo National River, the relatively limited opportunities for drive-in camping in the park, and the nature of the Tyler Bend area, the walk-in campground will include only about 10 to 15





GRINDERS FERRY  
RIVER ACCESS/PARKING

TO GILBERT

ARNOLD B

TRAIL

65

INFORMATION  
WAYSIDE

SILVER HILL

ANCE / FIRE CACHE

EXISTING  
CONTACT STATION  
(TO BE REMOVED)

ROAD

PARKING AREA

DEVELOPED AREA

HIKING TRAIL

HORSE TRAIL

100-YEAR FLOOD

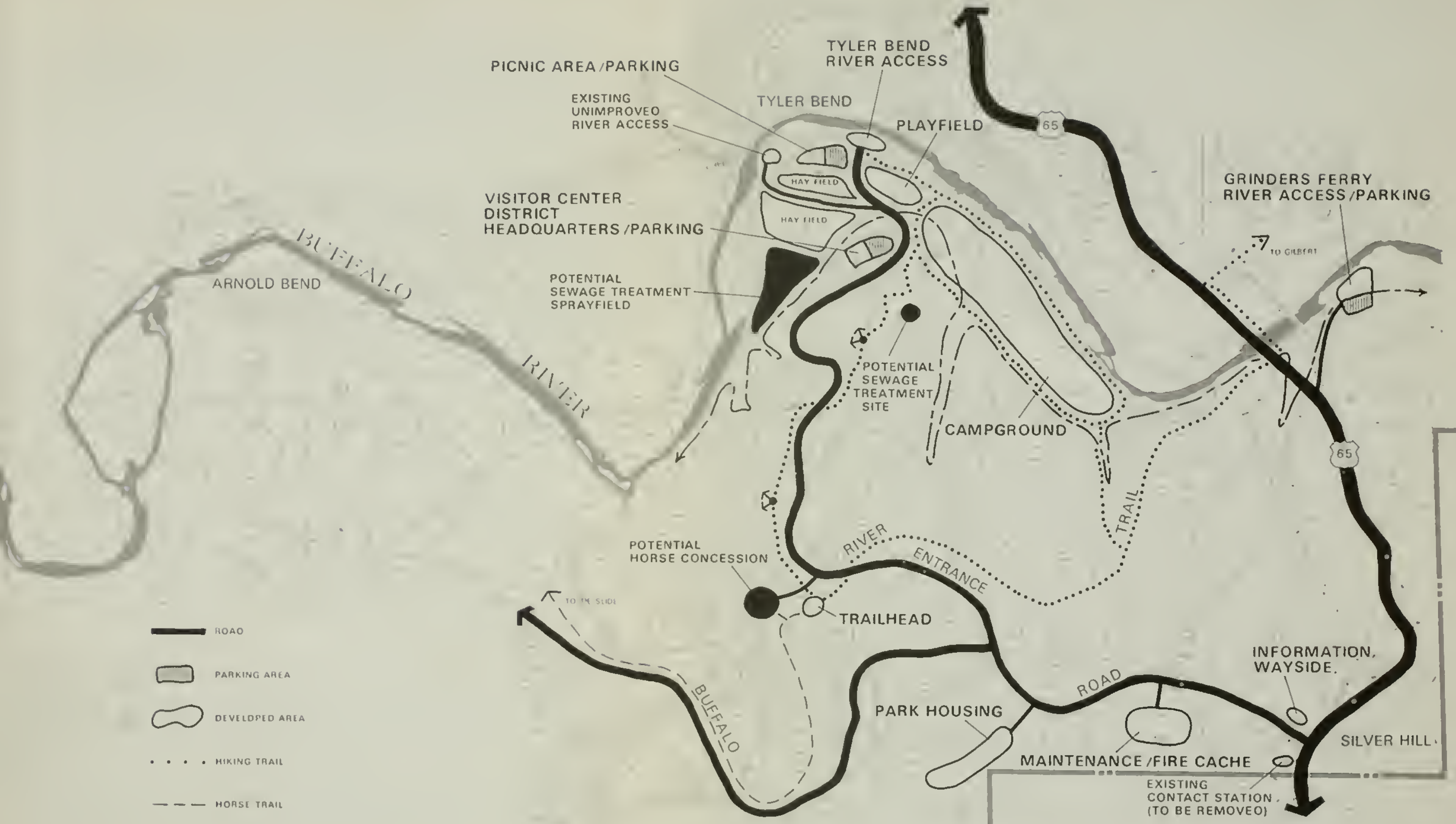
OVERLOOK








# DEVELOPMENT CONCEPT

Tyler Bend

BUFFALO NATIONAL RIVER

U.S. DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



-  ROAD
-  PARKING AREA
-  DEVELOPED AREA
-  HIKING TRAIL
-  HORSE TRAIL
-  100 YEAR FLOODPLAN
-  OVERLOOK



**REVISED DEVELOPMENT CONCEPT**

Tyler Bend  
BUFFALO NATIONAL RIVER

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

sites, and the developed (drive-in) campground will include up to 90 sites (built in phases), with restroom facilities and a trailer dump station. The campground area will also include five group campsites. Because group size rarely exceeds 25 persons, they will be designed to accommodate that capacity. One of the five sites may be designed to accommodate larger groups for those rare occasions when needed. An amphitheater will be built in the campground area.

Because the level area above the 100-year flood level is very limited, most of the campground will be within the 100-year floodplain. However, the facility will be located as high up on the floodplain as practicable, and comfort stations in the floodplain will be designed to withstand inundation.

The maintenance area will be developed at the site proposed in the 1981 DCP (see Revised Development Concept map). Facilities will include a 6,000-square-foot building (equivalent to other district maintenance buildings at Buffalo River), a 2,000-square-foot covered storage building, and a fenced yard. The district fire/rescue cache will be in the maintenance area/fire cache complex. The housing area, with two staff residences and three duplex seasonal quarters, will be developed nearby.

The "landscape management area" (playfield) proposed in the 1981 DCP will be designed in conjunction with the picnic area to serve the consolidated day use area and camping functions and act as a buffer between these facilities. A picnic area with up to 20 sites will be developed near the Tyler Bend river access site. A group picnic shelter with tables and grill will be included.

A central sewage treatment plant was proposed in the 1981 DCP. As a possible alternative to a central treatment plant, septic systems will be investigated to determine if they are feasible and if groundwater can be protected. The type of treatment recommended will be suitable for area soils and will consider the potential for flood damage.

Consistent with the 1986 Road System Evaluation for Buffalo National River, the Calf Creek road will be maintained as a low standard scenic drive.

Trails will be developed as proposed in the 1987 Trail Plan for Buffalo National River. This includes a route for the river-long Buffalo River Trail, which includes a horseback-riding trail heading west and a hiking trail heading east from Tyler Bend. Loop hiking trails will also be developed in the Tyler Bend area (see Revised Development Concept map). A horse trailhead (10 car/trailer spaces) will be constructed at the site formerly proposed for the visitor center.

The 1975 Master Plan for Buffalo National River states that a horse concession may be considered for Tyler Bend if horse rental operations are not developed outside the park. Because no active operation exists after 11 years, this revised DCP identifies a site for a potential horse



concession facility. A final decision on this facility will be made following additional concession feasibility studies and evaluation of private sector proposals when made.

The river access (formerly proposed on the north side of the Buffalo River near US 65) has been relocated to the south side just downstream from the highway bridge where canoe put-in/takeout has become a traditional use. The state of Arkansas is planning to construct a new US 65 bridge in that area. The proposed parking area will include spaces for about 25 cars and 5 buses/RVs on a bench above the river. This facility will be known as the Grinders Ferry river access.

The river access at Tyler Bend will be at the site selected in the 1981 DCP. The site includes a stable gravel bar, and it is below the Mill Creek shoal. The facility will include about 40 car/10 bus/RV spaces and will also serve the picnic area. Part of this lot may be overflow-type parking to minimize costs and reduce impacts. Vehicular access will also be maintained along the existing dirt road to the pool above Mill Creek where an existing undeveloped river access will be maintained in its present condition.

Open fields in the bottomlands south of the picnic area at Tyler Bend will continue to be maintained through hay permits or prescribed burning. These fields are an important part of the view from the proposed visitor center. In addition, selected fields along the entrance road will be reestablished to preserve views from the road and nearby trail.

PRIORITIES AND COST ESTIMATES

	<u>Gross Cost</u>
<u>Phase I</u>	
Entrance road	\$1,179,000
Electric/telephone lines	378,000
River access, parking, picnic sites	271,000
Well, water to picnic area	<u>223,000</u>
Subtotal	\$2,051,000
<u>Phase II</u>	
Campground - water, half of the campsites and accompanying roads	\$ 500,000
Comfort stations and sewage treatment facilities to serve campground	1,100,000
Information wayside	34,000
Complete picnic area - parking, pavilion, restrooms	412,000
Loop hiking trails	197,000
Maintenance area, utilities	1,411,000
Amphitheater	<u>186,000</u>
Subtotal	\$3,840,000



Future Phases

Campground - completion of campsites, roads and water to serve expanded campground	\$ 460,000
Comfort stations - completion of sewage treatment facilities to serve expanded campground	800,000
RV trailer dump station	53,000
Visitor center, parking, utilities	1,026,000
Fire cache, utilities	282,000
Horse trailhead, trail to Tie Slide	137,000
Highway 65 access	169,000
NPS housing, road, utilities	1,206,000
Pave all roads and parking	1,632,000
Reestablish open space, vistas	230,000
Trail to Gilbert	131,000
Horse concession	<u>305,000</u>
Subtotal	6,431,000
Grand Total	\$12,322,000

Note: These are rough "class C" estimates based on average costs for similar facilities in all NPS areas. Gross costs include 31 percent of net construction costs to cover construction supervision and contingencies.

## LEGAL COMPLIANCE

An archeological survey and testing was completed for the Tyler Bend area in August 1986. The preliminary conclusion was that none of the sites surveyed were eligible for listing on the National Register of Historic Places. A copy of the survey report has been sent to the state archeologist for concurrence. Development proposed in this plan will not affect the Calf Creek archeological site. Prior to construction, additional archeological surveys will be needed for the road realignments, horse trailhead, and horse concession area sites. There are no historic resources at Tyler Bend that are on the National Register.

The Tyler Bend area does not contain any federally listed endangered plant or animal species. The sites proposed for development will be reviewed for candidate plant species (category 2) under consideration for listing, and impacts will be avoided if practicable.

With one exception, the revised DCP is a reorganization of previously proposed uses at the sites identified for development in the 1981 plan. Sizes have been adjusted in several cases, but overall capacities are about the same or lower, and environmental impacts should be similar. The only new element is the potential horse concession facility. Because this development will require additional concession feasibility analysis before a final decision is made, the need for additional environmental compliance will be assessed at that time. Other revisions are categorically excluded from further environmental compliance because they are changes to an approved plan that would cause no or only minor additional environmental impacts (516 DM 6, appendix 7.4 B (1)).

All facilities in the 100- or 500-year floodplain (i.e., campgrounds, picnic areas, roads, river accesses, trails, and parking areas) are "excepted actions" not requiring further compliance actions under NPS floodplain management guidelines. As stated above, these facilities will be as high up on the floodplain as practicable, and they will be designed to withstand periodic inundation. Buffalo National River has a flood warning program.

In compliance with the Architectural Barriers Act of 1968 and section 504 of the Rehabilitation Act of 1973 (as amended), the following portion of the facilities will be designed to be accessible to disabled visitors and/or disabled employees:

- five developed (drive-in) campsites
- one walk-in campsite
- campground restrooms, as necessary
- one group campsite

visitor center/headquarters and two parking spaces

two NPS employee housing units (one house, one two-bedroom apartment in one duplex unit)

amphitheater

maintenance facility (unless all employees must be able-bodied to perform duties)

hiking and circulation trails as feasible

river accesses if feasible

interpretive media

picnic shelter and one picnic site

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## PLANNING TEAM

### PLANNING TEAM FOR REVISION

Richard Alesch, Planner/Team Captain, Denver Service Center (DSC)

Alec Gould, Superintendent, Buffalo National River (BUFF)

Jim Liles, Assistant Superintendent, BUFF

David Gaines, Landscape Architect, Southwest Regional Office (SWRO)

Doug Faris, Chief of Planning and Design, SWRO

Larry Walling, Project Supervisor, DSC

Tom Dall, Chief, Landscape Architecture Section, Central Team, DSC

Suzy Stutzman, Landscape Architect, DSC

John Scott, Middle District Ranger, BUFF

Roger Colman, Archeologist, SWRO

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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